

Consensus Statements and Doctors' Recommendations on Cell Phones/Wireless It is a fact that *not a single medical organization* states that cell phone/wireless radiation is safe. There is no proof of safety.

American Academy of Pediatrics

The American Academy of Pediatrics (AAP), is a non-profit professional organization of 60,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists dedicated to the health, safety and well-being of infants, children, adolescents, and young adults.

2016: American Academy of Pediatrics Website: Healthy Children.org Cell Phone Radiation & Children's Health: What Parents Need to Know. In response to the National Toxicology Program Cell Phone Radiation Study results, the AAP issued the following cell phone safety tips specifically to reduce exposure to wireless radiation in 2016:

- Use text messaging when possible, and use cell phones in speaker mode or with the use
 of hands-free kits.
- When talking on the cell phone, try holding it an inch or more away from your head.
- Make only short or essential calls on cell phones.
- Avoid carrying your phone against the body like in a pocket, sock, or bra. Cell phone
 manufacturers can't guarantee that the amount of radiation you're absorbing will be at a
 safe level.
- Do not talk on the phone or text while driving. This increases the risk of automobile crashes.
- Exercise caution when using a phone or texting while walking or performing other activities. "Distracted walking" injuries are also on the rise.
- If you plan to watch a movie on your device, download it first, then switch to airplane mode while you watch in order to avoid unnecessary radiation exposure.
- Keep an eye on your signal strength (i.e. how many bars you have). The weaker your cell signal, the harder your phone has to work and the more radiation it gives off. It's better to wait until you have a stronger signal before using your device.
- Avoid making calls in cars, elevators, trains, and buses. The cell phone works harder to get a signal through metal, so the power level increases.
- Remember that cell phones are not toys or teething items.

Press Release: The AAP responds to study showing link between cell phone radiation, tumors in rats May 27, 2016

"They're not toys. They have radiation that is emitted from them and the more we can keep it off the body and use (the phone) in other ways, it will be safer," said Jennifer A. Lowry, M.D., FAACT, FAAP, chair of the AAP Council on Environmental Health Executive Committee.

<u>2015 AAP Healthy Child Web Page on Electromagnetic Fields: A Hazard to Your Health?</u> This webpage states:

"Cell Phones: In recent years, concern has increased about exposure to radio frequency electromagnetic radiation emitted from cell phones and phone station antennae. An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing: *Headaches, Memory problems, Dizziness, Depression, Sleep problems*"

2013 AAP Letter to FCC Commissioner Mignon Clyburn and FDA Commissioner Margaret Hamburg calling for a review of RF guidelines 8/29/2013

"The AAP urges the FCC to adopt radiation standards that: Protect children's health and well-being. Children are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation. Current FCC standards do not account for the unique vulnerability and use patterns specific to pregnant women and children. It is essential that any new standard for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded throughout their lifetimes."

2012 AAP Letter to US Representative Dennis Kucinich in Support of the Cell Phone Right to Know Act 12/12/2012

"The differences in bone density and the amount of fluid in a child's brain compared to an adult's brain could allow children to absorb greater quantities of RF energy deeper into their brains than adults. It is essential that any new standards for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded through their lifetimes."

<u>Time Magazine (2012): Pediatricians Say Cell Phone Radiation Standards Need Another Look</u>

2012, the AAP published Pediatric Environmental Health, Textbook of Children's Environmental Health 3rd Edition edited by Philip J. Landrigan, Ruth A. Etzel. Chapter 41: Electromagnetic Fields.

"Exposures can be reduced by encouraging children to use text messaging when possible, make only short and essential calls on cellular phones, use hands free kits and wired headsets and maintain the cellular phone an inch or more away from the head."

Read it on Google Books Chapter 41: Electromagnetic Fields at this link page 383.

Oxford Medicine Chapter 41 Link

AAP News 2011: *More study needed on risk of brain tumors from cell phone use* by Ruth A. Etzel, AAP News, Oct 2011

The BabySafe Project

As of August 2016 over 200 physicians, scientists and public health professionals from around the world have signed onto this Project "to express their concern about the risk that wireless radiation poses to pregnancy and to urge pregnant women to limit their exposures."

- "We call on our elected leaders to support such research and to advance policies and regulations that limit exposures for pregnant women. We call on industry to implement and explore technologies and designs that will reduce radiation exposures until such research is carried out."
- The BabySafe Project Brochure <u>"Ten Ways to Reduce Your Wireless Exposure"</u> which includes "Whenever possible, connect to the internet with wired cables".
- The BabySafe Project Website
- EPA Award: The BabySafe Project was recognized in the <u>US EPA" 2016 Children's Environmental Health Excellence Award from the EPA's Office of Children's Health Protection.</u> Patricia Wood was awarded based on three distinct initiatives including "the creation and development of the BabySafe Project, a program designed to inform doctors, neonatal health professionals and parents about the potential risks that wireless radiation poses to pregnancy".

The California Medical Association

The California Medical Association (CMA) passed a Wireless Resolution in 2014 that states: "Whereas scientists are increasingly identifying EMF from wireless devices as a new form of environmental pollution ...

Whereas peer reviewed research has demonstrated adverse biological effects of wireless EMF including single and double stranded DNA breaks, creation of reactive oxygen species, immune dysfunction, cognitive processing effects, stress protein synthesis in the brain, altered brain development, sleep and memory disturbances, ADHD, abnormal behavior, sperm dysfunction, and brain tumors; and...Resolved, That CMA support efforts to implement new safety exposure limits for wireless devices to levels that do not cause human or environmental harm based on scientific research." Read the full CMA Resolution here.

Read a the Santa Clara Medical Bulletin article by Dr. Cindy Russell that explains the CMA resolution and gives recommendations for schools.

The Vienna Medical Association

The Vienna Medical Association has issued <u>Ten Medical Rules for Cell Phones</u> which includes: "Make calls as short and little as possible, Do not position mobile phones directly on the body, Fewer apps means less radiation, Make calls at home and at work via the fixed corded (not wireless) network - Internet access via LAN cable, Constant radiation emitters like DECT cordless telephones, WLAN access points, data sticks and LTE Home base stations (Box, Cube etc.) should be avoided! Avoid Mobile phone calls in places with poor reception "

"The radiation from mobile phones or smartphones is most likely not as safe as cell phone providers claim it to be. Therefore, the Vienna Medical Association has decided to do the responsible thing and inform the Austrian public about possible adverse effects from a medical perspective."

The Connecticut Department of Public Health, USA

Public Health Department recommendations to reduce exposure to cellphone radiation. 7 steps on *how* people can reduce exposure.

"It is wise to reduce your exposure to radiofrequency energy from cell phones whenever possible." Read the Connecticut Department of Public Health Cell Phone Q and A about Cell phones here.

The Massachusetts Department of Health, USA

<u>BEST PRACTICES IN THE USE OF WIRELESS TECHNOLOGY</u> Dr. Robert S. Knorr Director, Environmental Epidemiology Program Bureau of Environmental Health, Massachusetts Department of Public Health

"Below are common recommendations and include those for both cell phone and non-cell phone sources:

- Use wired communication devices instead of wireless devices
- Limit children's use of cell phones except for emergencies
- Keep cell phones and other sources at a distance
- If using wireless devices like computers, laptops, tablets, and printers, place the
 wireless router away from where children and adults usually spend time.
 Read all of the recommendations from the Mass Department of Health in full at
 this link.

The French National Agency of Health Security of Food, Environment and Labour 2016 Report "Radiofrequency Exposure and the Health of Children" recommends reducing exposures to young children and strengthening regulations to ensure "sufficiently large safety margins" to adequately protect the health of young children.

- All wireless devices, including tablets, cordless phones, remote controlled toys, wireless toys, baby monitors and surveillance bracelets, should be subjected to the same regulatory obligations as cell phones.
- Compliance with regulatory exposure limits should be insured for the ways that devices are customarily used, such as positioned in contact with the body.
- Exposure limits for radiofrequency electromagnetic fields should be tightened to ensure sufficiently large safety margins to protect the health and safety of the general population, particularly the health and safety of children.
- Reliance on the specific absorption rate (SAR) to set human exposure limits should be re-evaluated and replaced through the development of an indicator to assess real exposures for mobile phone users that applies to various conditions: signal type, good or bad reception, mode of use (call, data loading, etc.), location device is used on the body.

• ANSES reiterated its recommendation, as previously stated, to reduce exposure to children: minimize use and prefer a hands-free kit.

2013 Report "Radiofrequency Electromagnetic Fields and Health" Expert Appraisal: hands free phones, SAR labeling, and "limiting the population's exposure to radiofrequencies... especially for children and intensive users, and controlling the overall exposure that results from relay antennas."

The American Cancer Society (ACS)

2016 ACS Responds to New Study Linking Cell Phone Radiation to Cancer

"The NTP report linking radiofrequency radiation (RFR) to two types of cancer marks a paradigm shift in our understanding of radiation and cancer risk. The findings are unexpected; we wouldn't reasonably expect non-ionizing radiation to cause these tumors. This is a striking example of why serious study is so important in evaluating cancer risk. It's interesting to note that early studies on the link between lung cancer and smoking had similar resistance, since theoretical arguments at the time suggested that there could not be a link." -Otis W. Brawley, M.D., The American Cancer Society Chief Medical Officer in ACS Responds to New Study Linking Cell Phone Radiation to Cancer posted on May 27, 2016 after the NTP results were released.

<u>2009 Lecture at Cell Phones and Health Conference</u>: In 2009 Michael Thun, Vice President of the American Cancer Society, lectured on cell phone radiation and cancer risk and detailed how it would take decades before definitive evidence is found in the general population due to the slow growing nature of brain cancer but that early signs would be seen in increases in gliomas <u>Watch the lecture by Dr. Thun here</u>.

Canadian Parliament Standing Committee on Health of the House of Commons
2015 Canadian Parliament Report "Radio Frequency Electromagnetic Radiation
and the Health of Canadians" has 12 recommendations including "That the
Government of Canada develop an awareness campaign relating to the safe use of
wireless technologies, such as cell phones and Wi-Fi, in key environments such as the
school and home to ensure that Canadian families and children are reducing risks
related to radiofrequency exposure."

Environment and Human Health, Inc.

Cell Phones: Technology, Exposures, Health Effects by Environment and Human Health, Inc. John Wargo, Ph.D., professor of Environmental Risk and Policy at Yale University and lead author of the report, said, "The scientific evidence is sufficiently robust showing that cellular devices pose significant health risks to children and pregnant women. The weight of the evidence supports stronger precautionary regulation by the federal government. The cellular industry should take immediate steps to reduce emission of electromagnetic radiation (EMR) from phones and avoid marketing their products to children."

- Download Full Text of Report
- Summary

- Recommendations
- Press Release

The Council of Europe

In 2011 The Parliamentary Assembly of the Council of Europe issued Resolution 1815: <u>The Potential Dangers of Electromagnetic Fields and Their Effect on the Environment.</u> A call to European governments to "take all reasonable measures" to reduce exposure to electromagnetic fields "particularly the exposure to children and young people who seem to be most at risk from head tumours."

"For children in general, and particularly in schools and classrooms, give preference to wired Internet connections, and strictly regulate the use of mobile phones by schoolchildren on school premises." Read the 2011Resolution 1815

(Note: This is a follow up to the 2009 European Parliament's <u>Health concerns associated</u> <u>with electromagnetic fields</u>).

2015 International Scientists Appeal to U.N. to Protect Humans and Wildlife from Electromagnetic Fields and Wireless Technology

In May 2015, a group of over 200 scientists from 39 nations who have authored more than 2,000 articles on this topic appealed to the United Nations to address "the emerging public health crisis" related to cell phones and other wireless devices. These scientists state that "the ICNIRP guidelines do not cover long-term exposure and low-intensity effects, and are "insufficient to protect public health."

- They state that "the various agencies setting safety standards have failed to impose sufficient guidelines to protect the general public, particularly children who are more vulnerable to the effects of EMF."
- See the <u>International Scientists Appeal to U.N. to Protect Humans and Wildlife</u> from Electromagnetic Fields and Wireless Technology.

The World Health Organization's International Agency for Research on Cancer

The WHO/IARC classified all radiofrequency electromagnetic fields as "possibly carcinogenic to humans" in 2011 based on the opinion of a Working Group of 31 international experts who met in Lyon, France in May, 2011 based largely on positive associations have been observed between exposure to radiofrequency radiation from wireless phones and glioma, and acoustic neuroma." (p. 421)

- Read article in <u>The Lancet IARC 2011 on the classification</u>,
- Read the <u>The 2011 IARC Press Release by the WHO IARC</u> in which precautions are recommended:

"Given the potential consequences for public health of this classification and findings, it is important that additional research be conducted into the long-term, heavy use of mobile phones. Pending the availability of such information, it is important to take pragmatic measures to reduce exposure such as hands-free devices or texting." said IARC Director Christopher Wild.

- Read the <u>published the IARC Monograph on Non-Ionizing Radiation</u>, <u>Part 2:</u>
 <u>Radiofrequency Electromagnetic Fields</u> (April 2013) with scientific basis for classification.
 - "Due to the closer proximity of the phone to the brain of children compared with adults, the average exposure from use of the same mobile phone is higher by a factor of 2 in a child's brain and higher by a factor of 10 in the bone marrow of the skull." (p. 408)

Swiss Physicians Association of Doctors for Environmental Protection

<u>2012 Swiss Physicians Letter</u> "the risk of cancer for this type of [wireless] radiation is similar to that of the insecticide DDT, rightfully banned... From the medical point of view, it is urgent to apply the precautionary principle for mobile telephony, WiFi, power lines, etc."

<u>2014: Preliminary draft for a federal law on the protection against dangers:</u> Non-ionizing radiation (NIS) is growing steadily. Especially the everyday stress in the area of low-frequency and high-frequency. <u>Read it here.</u>

<u>2016: Press Release on the NTP Study and Policy Implications</u>: "There are increasingly clear indications that mobile radio is a health hazard. From a medical point of view it is clear: the scientific results so far show it is clear that prudent avoidance of unnecessary exposures is necessary."

Additional Links by Swiss Physicians for the Environment
 Report on <u>Smartphones- (OEKOSKOP 1/16)</u> <u>AefU-News about Electrosmog</u>

Dr. Eitan Kerem, Chairman, Department of Pediatrics at Hadassah Hebrew University Hospital

In response to the 2016 NIH/NIEHS/NTP Study results finding a link between RF-EMF and Cancer, Dr. Kerem issued a statement which includes:

"It is well known that children are more sensitive to radiation than adults; many of them are using cellphone and other radiating media more frequently than adults. The effect of radiation is accumulative and this may have long term effect on the growing child. Such findings in the pharma industry may prevent further developing of a drug until safety is proven, and until the findings of this study are confirmed parents should be aware of the potential hazards of carcinogenic potential of radiofrequency radiation." Read the Statement by Dr. Eitan Kerem, Hadassah Hebrew University Hospital

The American Academy of Environmental Medicine

The American Academy of Environmental Medicine's Open Letter to the Superintendents of the School Districts of the United States

"Adverse health effects, such as learning disabilities, altered immune responses, headaches, etc. from wireless radio frequency fields do exist and are well documented in the scientific literature. Safer technology, such as using hard-wiring, must be seriously considered in schools for the safety of those susceptible individuals who may be affected by this phenomenon."

Wireless Radiofrequency Radiation in Schools

American Academy of Environmental Medicine Recommendations Regarding Electromagnetic and Radiofrequency Exposure
Letter to the FCC regarding Radiofrequency Exposure Limits.

International Society of Doctors for the Environment

ISDE has made the following recommendations: Avoid Wi-Fi in home or work if possible, particularly in schools or hospitals and Use wired technology whenever possible.

- "Because of the potentially increased risks for the foetus, infants and young children due
 to their thinner more permeable skulls and developing systems, particularly the immune
 and neurological systems, based on the precautionary principle and on the mounting
 evidence for harm at the sub-cellular level, we recommend that EMR exposure should
 be kept to a minimum."
- Read the Statement Here.

Irish Doctors Environmental Association

The Irish Doctors Environmental Association wrote a statement in 2013 concerning health concerns with Wi-Fi in school:

"We urge you to use wired technologies for your own safety and that of your pupils and staff." Read the 2013 Letter

Bioinitiative Working Group

<u>Bioinitiative 2012 Report</u>: A report by <u>29 independent scientists and health experts</u> from around the world* about possible risks from wireless technologies and electromagnetic fields.

"The science, public health, public policy and global response to the growing health issue of chronic exposure to electromagnetic fields and radiofrequency radiation in the daily life of billions of people around the world. Covers brain tumor risks from cell phones, damage to DNA and genes, effects on memory, learning, behavior, attention; sleep disruption and cancer and neurological diseases like Alzheimer's disease. Effects on sperm and miscarriage (fertility and reproduction), effects of wireless on the brain development of the fetus and infant, and effects of wireless classrooms on children and adolescents is addressed. Mechanisms for biological action and public health responses in other countries are discussed. Therapeutic use of very low intensity EMF and RFR are addressed."

Henry Lai's Research Summaries: These abstracts (data-based to be searchable) cover the RFR scientific literature from both RFR and ELF on research published between 1990-2012.

<u>The Bioinitiative RF Color Charts</u> summarize many studies that report biological effects and adverse health effects relevant for cell towers, WI-FI, 'smart' wireless utility meters, wireless laptops, baby monitors, cell phones and cordless phones. The reader can compare the level of EMF used in specific research studies relative to the health effect.

Bioinitiative Letter to Education Super Highway CEOs the Co-Editors of the Bioinitiative Report Cindy Sage and David Carpenter sent a letter on behalf of the Bioinitiative Working Group to the CEO's on the health risks of wireless infrastructure in US schools stating:

"WiFi in schools, in contrast to wired internet connections, will increase risk of neurologic impairment and long-term risk of cancer in students. Corporations cannot avoid responsibility simply by asserting compliance with existing legal, but outdated and inadequate FCC public safety limits. Today, corporations that deal with educational technology should be looking forward and helping school administrators and municipal leaders to access safe, wired solutions." Read the Letter to Education Super Highway CEOs,

Austrian Medical Association

Guidelines of the Austrian Medical Association for the diagnosis and treatment of EMF related health problems and illnesses (EMF syndrome): The Austrian Medical Association, on March 3, 2012, released their guide for diagnosing and treating people with EMF-related health problems.

"Wi-Fi environments will lead to high microwave exposure for students and teachers which might increase the burden of oxidative stress. Oxidative stress might slow down the energy production especially in brain cells and may lead e.g. to concentration difficulties and memory problems in certain individuals. The Austrian Medical Association recommends Wi-Fi free school environments."

Dr Gerd Oberfeld, MD, Public Health Department, Salzburg, Austria, on behalf of the Austrian Medical Association stated, "Schools should provide the best possible learning environments. In this context low noise levels, good air quality and low radiofrequency / microwave radiation are crucial. Wi-Fi environments will lead to high microwave exposure for students and teachers which might increase the burden of oxidative stress. Oxidative stress might slow down the energy production especially in brain cells and may lead e.g. to concentration difficulties and memory problems in certain individuals. The Austrian Medical Association recommends Wi-Fi free school environments".

Pittsburgh Cancer Institute

Dr. Ronald B. Herberman, Director of the University of Pittsburgh Cancer Institute, issued a Memo to PCI Staff: Important Precautionary Advice Regarding Cell Phone Use

"Do not allow children to use a cell phone, except for emergencies. The developing organs of a fetus or child are the most likely to be sensitive to any possible effects of exposure to electromagnetic fields".

- Prominent Cancer Doctor Warns About Cellphones: New York Times article
- Statement Of Ronald B. Herberman, MD Director University of Pittsburgh Cancer Institute and UPMC Cancer Centers to the Domestic Policy Subcommittee Oversight and Government Reform Committee Thursday, September 25, 2008 2154 Rayburn HOB 11:00 a.m. "Tumors and Cell Phone use: What the Science Says"

The Cancer Association of South Africa (CANSA)

"In order to prove that the use of cell phones can cause cancer, many thousands of cell phone users would need to be studied over many years. Such studies are now in progress in many countries and it is expected that definitive results will be forthcoming in the near future. However, just because there is no definite evidence at this stage, does not mean that there is no potential danger."

Recommendations to reduce Exposure: <u>CANSA has issued a Fact Sheet and Position</u>
<u>Statement on Exposure to Radiofrequency Electromagnetic Fields</u>

"CANSA proposes that exposure to cell phone radiation be kept to a minimum by: Limiting the number and duration of calls Texting rather than making calls Switching the sides of the head when a call is long – one should, however, avoid long conversations Making use of hands-free kits or speaker phone mode to keep the phone a distance from the head. Instructing children and teenagers to limit calls to emergencies only as they are more vulnerable to electro-magnetic radiation because of the thickness of their skulls and their brains are still developing. Not sleeping with one's cell phone close to one's bed or under one's pillow. Women not to keep their cell phones in their brassiere. Men not to carry their cell phones in the pockets of their pants (close to their testicles)."

The Canadian Medical Association

2011 Resolution on Cell Phone Radiation

"The Canadian Medical Association will educate and advise the profession and the public on methods of cellphone operation that will minimize radio frequency penetration to the brain."

Read the 2011 General Council of the Canadian Medical Association Proceedings (page 54)

Canadian Medical Association Journal reports Health Canada's wireless limits are "A Disaster to Public Health" Read the article here.

Canadian Doctors

2014 Letter by 55 Canadian Doctors

The Doctors wrote Health Canada calling for more protective limits stating, "There is considerable evidence and research from various scientific experts that exposure to microwave radiation from wireless devices; Wi-Fi, smart meters and cell towers can have an adverse impact on human physiological function".- Canadian Doctors Declaration to Health Canada, International Group in Support of Safer Standards for Canadians

53 Doctors sign a Scientific Declaration on Health Canada EMF Limits July 9,2014

The Russian National Committee on Non-Ionizing Radiation Protection

<u>ELECTROMAGNETIC FIELDS FROM MOBILE PHONES: HEALTH EFFECT ON CHILDREN</u>

<u>AND TEENAGERS (2011)</u> warns about electromagnetic radiation impacts on children and recommended WiFi not be used in schools.

• Official Recommendations: Those under the age of 18 should not use a mobile phone

at all, recommends low- emission phones; and requires the following: on-device labelling notifying users that it is a source of RF-EMF, user guide information advising that "it is a source of harmful RF-EMF exposure" and the inclusion of courses in schools regarding mobile phones use and RF-EMF exposure issues. "Thus, for the first time in the human history, children using mobile telecommunications along with the adult population are included into the health risk group due to the RF EMF exposure."

- "In children, the amount of so-called stem cells is larger than in adults and the stem cells were shown to be the most sensitive to RF EMF exposure."
- "It is reasonable to set limits on mobile telecommunications use by children and adolescents, including ban on all types of advertisement of mobile telecommunications for children."

<u>Decision of Russian National Committee on Non-Ionizing Radiation Protection</u> 2008, "Children and Mobile Phones: The Health of the Following Generations is in Danger"

The Cyprus National Committee on Environment and Child Health

This Health Committee was created by the Cyprus government to advise on children's environmental health issues and is comprised of pediatricians. They have issued strong recommendations to reduce exposure to children.

- <u>Protecting children from radiation emitted by Wi-Fi, mobile phones and wireless</u> by Dr.
 Stella Kanna Michailidou of the National Committee Chairman "Environment and Children's Health"
- <u>See the Commission's EMF brochure</u> on reducing the risks to children from exposure to the Non Ionizing Radiation (mobile phones, Wi-Fi, tablets, etc.).
- The Cyprus National Committee on Environment and Child Health created <u>a short PSA</u>
 <u>for citizens</u> about children and wireless radiation and how to reduce Wi-Fi exposure.
 https://www.youtube.com/watch?v=996vzcCYCnE

The Italian Society for Preventive and Social Pediatrics

The Society has officially called to prohibit cell phones for children under 10 years old. "We do not know all the consequences associated with cell phone use, but excessive use could can lead to concentration and memory loss, increase in aggressiveness and sleep disturbances," stated Giuseppe Di Mauro, President of The Italian Society for Preventive and Social Pediatrics stating, "The damage to health are increasingly evident."

-Read the News Article Pediatricians Sound Alarm for Kids on Cell Phones

European Academy for Environmental Medicine

2016 EMF Guidelines were published giving an overview of the current knowledge regarding EMF-related health risks and provides recommendations for the diagnosis, treatment and accessibility measures of EHS to improve and restore individual health outcomes as well as for the development of strategies for prevention.

- Read the <u>EUROPAEM EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses</u>

British Medical Doctors

In 2014 a group of **British Medical Doctors issued** <u>Health and safety of Wi-Fi and mobile</u> <u>phones:</u>

"We wish to highlight our concern over the safety of exposure to microwave radiation from wireless technology, particularly for vulnerable groups like children, pregnant women, the elderly and those with compromised health".

U. S. President's Cancer Panel, 2009

The 2009 U.S. President's Cancer Panel pointed to cell phones and other wireless technologies as potential causes of cancer. In its recommendations, the panel stated:

"Several steps can be taken to reduce personal exposure to RF fields from cell phones. Landlines or text messaging should be used whenever possible. If a mobile phone must be used, a headset is preferable to holding the phone to the ear. Children should be prohibited from using mobile phones except in emergencies. Active phones should not be kept on belts or in pockets. Phones should not be kept in close proximity during sleep.

Reduction of exposure to other sources of RF can be accomplished by keeping AM, FM, television, and mobile phone towers far from homes, schools, and businesses. Wireless networks should not be used in schools; wired connections should be used instead. There should be resistance to the general trend toward making everything wireless without consideration of negative consequences."

DR. MARTHA LINET: CELLULAR (MOBILE) TELEPHONE USE AND CANCER RISK DR. DAVID CARPENTER: ELECTROMAGNETIC FIELDS AND CANCER: THE COST OF DOING NOTHING Page 15

"Since latency for brain cancer from environmental exposures is thought to be 20 to 30 years, comprehensive studies looking at longer-term human exposure are needed. Participants urged that a precautionary approach be taken with respect to the use of cell phones by children, who are more susceptible than adults to radiation risks."

- Summary of of the President's Cancer Panel 2009 January 27 Phoenix, AZ

Israel Dental Association

Israeli Dental Association issued a recommendation to decrease exposure after their research showed links to salivary gland tumors.

"One in every five rare malignant tumors of the cheek occurs in someone under age 20 Young people should limit direct exposure of the head to microwave radiation from cell phones." News Article:Israeli Study Sees Link Between Oral Cancer, Cell Phones Israel Dental Association: Number of cases of parotid salivary cancer rose dramatically in past five years.

The Seletun Scientific Statement

In November, 2009, a scientific panel met in Seletun, Norway, for three days of intensive discussion on existing scientific evidence and public health implications of the unprecedented global exposures to artificial electromagnetic fields (EMF). EMF exposures (static to 300 GHz) result from the use of electric power and from wireless telecommunications technologies for voice and data transmission, energy, security, military and radar use in weather and transportation. The Scientific Panel recognizes that the body of evidence on EMF requires a new approach to protection of public health; the growth and development of the fetus, and of children; and argues for strong preventative actions. New, biologically-based public exposure standards are urgently needed to protect public health worldwide.

The report and Consensus Statement, published in the journal Reviews on Environmental Health (http://www.ncbi.nlm.nih.gov/pubmed/21268443), **Seletun Consensus Statement**

Potenza Picena Resolution 2011

On April 20th , 2013 the International Congress of Potenza Picena entitled "Radar, radiofrequency and health risk" concluded that stricter safety standards for EMF needs to be adopted by governments and public health agencies because the existing ones are obsolete and they are not based on recent literature about biological effects." Potenza Picena Resolution 2011

Porto Alegre Resolution, Brazil

Dozens of Doctors, (primarily from Brazil) have issued recommendations

"We are deeply concerned that current uses of non-ionizing radiation for mobile phones, wireless computers and other technologies place at risk the health of children and teens, pregnant women, 2 seniors and others who are most vulnerable due to age or disability, including a health condition known as electromagnetic hypersensitivity. We strongly recommend these precautionary practices: 1. Children under the age of 16 should not use mobile phones and cordless phones, except for emergency calls;" Read more at Porto Alegre Resolution

Even as far back as 1997, dozens of Boston Doctors and Health experts signed onto a petition with concerns about Sprint's Wireless Rollout.

1997 Boston Physicians' and Scientists' Petition To Avert Public Exposures to Microwaves

"We the undersigned physicians and scientists call upon public health officials to intervene to halt the initiation of communication transmissions employing ground level, horizontally transmitting, pulsed microwaves in Boston."

MORE RECOMMENDATIONS TO KNOW

Consumer Reports

May 2016 Consumer Reports Recommendations in article: Does Cell Phone Use Cause
Brain Cancer? What the New Study Means For You: Groundbreaking study reveals the
strongest link yet between cell phone radiation and cancer. Important advice for all consumers.

- Try to keep the cell phone away from your head and body. Keeping it an arm's distance away significantly reduces exposure to the low-level radiation it emits. This is particularly important when the cellular signal is weak—when your phone has only one bar, for example—because phones may increase their power then to compensate.
- Text or video call when possible, because this allows you to hold the phone farther from your body.
- When speaking, use the speakerphone on your device or a <u>hands-free headset</u>.
- Don't stow your phone in your pants or shirt pocket. Instead, carry it in a bag or use a belt clip.

May 2016 Consumer Reports Recommendations to Government and Industry

"The substantial questions and concerns raised by this and previous research regarding cell phones and cancer requires swift and decisive action by the government and industry. Specifically, Consumer Reports believes that:

- The National Institutes of Health should commission another animal study using current cell phone technology to determine if it poses the same risks as found in this new study.
- The Federal Communications Commission should update its requirements for testing the
 effect of cell phone radiation on human heads. The agency's current test is based on the
 devices' possible effect on large adults, though research suggests that children's thinner
 skulls mean they may absorb more radiation. The FCC should develop new tests that
 take into account the potential increased vulnerability of children.
- The Food and Drug Administration and the FCC should determine whether the maximum specific absorption rate of 1.6 W/kg over a gram of tissue is an adequate maximum limit of radiation from cell phones.
- The Centers for Disease Control and Prevention should repost it's advice on the potential hazard of cell phone radiation and cautionary advice that was taken down in August 2014.
- Cell phone manufacturers should prominently display advice on steps that cell phone users can take to reduce exposure to cell phone radiation."

September 2015 Consumer Reports Recommendations in article Does Cell-Phone Radiation Cause Cancer?: As the debate over cell-phone radiation heats up, consumers deserve answers to whether there's a cancer connection

"We feel that the research does raise enough questions that taking some common-sense precautions when using your cell phone can make sense."

New Jersey Education Association (NJEA)

The September 2016 NJEA Review recommends staff and students "Minimize health risks from electronic devices" and issues these steps to reduce radiation exposure:

- Keep devices away from the body and bedroom.
- Carry phones in briefcases, etc., not on the body.
- Put devices on desks, not laps.
- Hard wire all devices that connect to the internet.
- Hard wire all fixed devices such as printers, projectors and boards.
- Use hard-wired phones instead of cell or cordless phones.
- Text rather than call.
- Keep conversations short or talk in person.
- Put devices in airplane mode, which suspends EMF transmission by the device, thereby disabling Bluetooth, GPS, phone calls, and WiFi.
- Use speaker phone or ear buds instead of holding the phone next your head.
- Take off Bluetooth devices when not using them."
- Read the article on the NJEA Review here. Download a PDF of the article here.

The Israeli Psoriasis Association

2016: The Israeli Psoriasis Association started selling retro headsets to reduce exposure from cell phones with the logo of the association on the headsets.



See the link at the Israeli Psoriasis Association.

National Center for Health Research

<u>2015</u>: Children and cell phones: is phone radiation risky for kids? Article explains what we know, what we do not know and what we can do.

"By the time we find out, many people will have been harmed if cell phones are found to be dangerous. Here are some precautionary tips on how to protect your children from the health issues that could be connected to cell phone radiation. 9

- 1. Turn airplane mode on when giving a child a technology device or when a cell phone is near a pregnant abdomen, to prevent exposure to radiation.
- 2. Turn off wireless networks and devices to decrease your family's radiation exposure whenever you aren't actively using them. As an easy first step, turn your Wi-Fi router off at bedtime.
- 3. Decrease use of phones or wifi where wireless coverage is difficult, in order to avoid an increase in radiation exposure."

Over 17 Government Health Agencies

Health agencies of countries worldwide have issued recommendations to reduce exposure to cell phones and wireless devices because of the lack of safety data. Please see a full list of the

recommendations of health agencies at

http://ehtrust.org/policy/international-policy-actions-on-wireless/

Seletun Consensus Statement

The report and Consensus Statement, published in the journal Reviews on Environmental Health (http://www.ncbi.nlm.nih.gov/pubmed/21268443) by a consortium of international scientists urges global governments to adopt significantly lower human exposure standards for electromagnetic fields. "Government actions are urgently warranted now, based on evidence of serious disruption to biological systems" Go to the webpage of the Seletun Consensus Statement

Stockach Germany Doctors

"As physicians and pharmacists, we believe that the further development of the mobile phone network is a matter of concern and appeals to politicians, scientists and health care providers, to protect the protection of life and health from all of us with due diligence and to act immediately. We strongly demand: no further expansion of mobile technology, because it involves involuntary risks with probably permanent burdens."

Read the Stockacher Appeal

Copenhagen Resolution

The Copenhagen Resolution was passed at the conference "The shadow-side of the Wireless Society" on October 9, 2010 at the Parliament building, Christiansborg, Copenhagen.

"Minimize wireless radiation exposure in public spaces occupied by vulnerable groups, like schools, day care facilities and public transport."

Read the Copenhagen Resolution

The Declaration of the Official Association of Biologists of Galician:

"It is necessary to adopt the principle of Precautionary measures as defined in Law 33/2011, General of Public Health, of the Spanish state, which identifies first and specifically and unequivocally emissions Electromagnetic are a risk to health... To monitor environmental risks and their health effects, including the presence of pollutants in the environment."

The Declaration of the Official Association of Biologists of Galician, Spanish

Benevento Resolution

"Based on our review of the science, biological effects can occur from exposures to both extremely low frequency fields (ELF EMF) and radiation frequency fields (RF EMF). Epidemiological and in vivo as well as in vitro experimental evidence demonstrates that exposure to some ELF EMF can increase cancer risk in children and induce other health problems in both children and adults."

Read the 2006 Benevento Resolution

Doctors of Lake Constance-Upper Swabia-Allgäu (373 Physicians)

As physicians, we believe that the further development of the mobile phone network is a matter of concern and appeals to politicians, scientists and persons in charge of education and health, to protect the life and health of all of us with due diligence and to act immediately.

We urge:

- 1. No further development of mobile technology, because it is involuntary risks with permanent burdens.
- Massive reduction of the limits and radio loads.
- 3. Enlighten the population about the health risks of electromagnetic fields (Mobile phones, cordless (DECT) phones, WLAN, bluetooth)
- 4. Limitations of use of mobile phones and the prohibition of DECT cordless telephones in kindergartens, schools, hospitals, senior homes, public buildings and transports, similar to the ban on smoking

Read the full 2006 Allgäuer Appeal, Read the list of Doctors

European/International Medical Doctors and Experts/Civic Organizations

In Madrid, on June 2013 a group of Doctors, medical organizations, researchers and representatives of civil organizations signed a statement in support of the application of ALARA (As Low As Reasonably Achievable) AND ALATA (As Low As Technically Achievable) The Ist of signatories includes many medica; I doctors in addition to: Domingo Jiménez Beltrán, the former Executive Director of the European Environment Agency (1994-2002), Dr. Tomica Ancevski, President of the Macedonian section of International Society of Doctors for the Environment; Dr. Roberto Romizi, President and on behalf of The Italian section of International Society of Doctors for the Environment; Dr Philip Michael, on behalf of the Irish Doctors Environmental Association and as VP (Europe) International Society of Doctors for the Environment; Prof. Dr. Hanns Moshammer, on behalf of the Austrian Doctors for a Healthy Environment; Fiorella Belpoggi, Ph.D., FIATP, Director and Chief of Pathology of the Cesare Maltoni /Cancer Research Centre of the Ramazzini Institute, Dr. Morando Soffritti, M.D; Oncologist, Scientific Director of the European Foundation for Oncology and Environmental Sciences

Read the European Manifesto in support of a European Citizens' Initiative (last updated July 2016)

The Freiburg Appeal International Doctors' Appeal

More than 1000 physicians <u>signed the "Freiburg Appeal" in 2002.</u> Ten years later, Doctors initiated the Appeal in 2012 which is ongoing.

"More and more new wireless technologies are introduced into our daily lives: cell phone networks, TETRA, LTE, cordless phones, Wi-Fi, baby monitors, wireless meters, digital

radio and TV, and many others. All of these wireless technologies interfere with the biophysical organization of life with increasing layers and densities of electromagnetic fields."

Freiburg Appeal: Wireless Radiation Poses a Health Risk.

Wuerzburg Appeal, 2010

The European Academy for <u>Environmental Medicine (EUROPAEM)</u> invited many renowned national and international scientists and health care professionals to a medical conference held in Wuerzburg, Germany from April 23 to April 25, 2010. This appeal was unanimously adopted by the congress.

Read the Wuerzburg Appeal, 2010

Letters by Medical Doctors to Schools on Wireless Installations in Schools

Letters to Petaluma Public Schools California, 2016

(Note: These letters are important as they were written after the NTP study release and include an analysis of how the research impacts an understanding of the risk to children).

- Letter from Dr. Carpenter to Petaluma Public Schools 8/3/2016
- Letter from Dr. Anthony Miller to Petaluma Public Schools 8/4/2016
- Letter from Dr. Martha Herbert to Petaluma Public Schools 9/2016
- Letter from Dr. Lennart Hardell to Petaluma Public Schools 8/4/2016

Letters to Montgomery County Public Schools Maryland, 2015

- <u>Lennart Hardell, MD, PhD, and Michael Carlberg, MSc, Department of Oncology, Orebro</u>
 University Hospital, Sweden to Montgomery County Schools 11/30/2015
- Dr. Olle Johansson, Karolinska Institute to Montgomery County Schools 12/8/2015
- <u>Dr. Martha Herbert, Harvard Pediatric Neurologist to Montgomery County Schools</u> 12/12/2015
- Anthony B. Miller, MD FACE, Professor Emeritus Dalla Lana School of Public Health, University of Toronto, World Health Organization Advisor to Montgomery County Schools
- Dr. David O. Carpenter, M.D. University of Albany to Montgomery County Schools
- Dr. Martin L. Pall, Professor Emeritus, Biochemistry and Basic Medical Sciences,
 Washington State University to Montgomery County Schools
- Devra Davis, PhD MPH, President and Founder Environmental Health Trust to Montgomery County Schools
- Mikko Ahonen, PhD, Finland, Institute of Environmental Health and Safety, Mrs. Lena Hedendahl, MD Practitioner, Luleå, Sweden, Mr. Tarmo Koppel, MSc., PhD to Montgomery County Schools December 13, 2015
- Cindy Sage. MA, Sage Associates, Co-Editor, BioInitiative 2007 and 2012 Reports and Prof. Trevor Marshall, PhD. Director, Autoimmunity Research Foundation, Senior Member IEEE, Founding chair (retired) IEEE EMBS (Buenaventura Chapter) Fellow,

European Association for Predictive, Preventive and Personalised Medicine (Brussels)
International Expert Council, Community of Practice: Preventative Medicine (Moscow) to
Montgomery County Schools

- Dr. Ronald Powell, retired U.S. Government scientist (Ph.D., Applied Physics, Harvard University) to Montgomery County Schools
- Cris Rowan, BScBi, BScOT, SIPT, to Montgomery County Schools
- <u>Lloyd Morgan, Engineer, Scientific Advisor, Environmental Health Trust to Montgomery County</u>

Letters to the Los Angeles School District

- Olle Johansson's Letter to the LAUSD
- Dr. Martin Blank's Letter to the LAUSD
- Dr. Joel Moskowitz Letter to the LAUSD
- Dr. Blanks Letter on Cell Towers near Schools.
- A Compilation of Letters by Doctors at Dr. Moskowitz website UC Berkeley

Letters by Experts

- Ron Powell, PhD Message to Public Schools about Wireless Devices, 2016
- Ron Powell PhD, The Health Argument against Cell Phones and Cell Towers, 2016
- Bioinitiative Letter to Education Super Highway CEOs
 - This letter was written by Cindy Sage and David Carpenter, Co-Editors of the Bioinitiative Report to the CEO's on wireless infrastructure in US schools.
- The American Academy of Environmental Medicine's Open Letter to the Superintendents of the School Districts of the United States
- Irish Doctors Environmental Association 2013 Letter Recommending Wired Connections
- Cris Rowan, <u>Open Letter to the Canadian Council of Education Ministers asking for</u> removal of wireless radiation from school environments
- Frank Clegg' Letter to Denmark's Committee on Radiation Protection
- Dr. David Carpenter's Letter to Kawartha Pine Ridge District School Board, 2011
- Dr. Steven Sinatra Letter to the Kawartha School Board, 2011
- 2009 Dr. Magda Havas' Open Letter: Open Letter to Parents, Teachers, & School Boards Regarding Wi-Fi Networks in Schools and Cell Phone Antennas near School Property
- British Medical Doctor's Letter Health and safety of Wi-Fi and mobile phones
- Olle Johansson, PhD Letter on WiFi in Schools Australia, 2013

Q: Why do federal regulations allow cell phones to be sold to children if Doctors are so concerned?

A: As history shows, federal protections are usually implemented **decades after** research shows an environmental exposure is harmful. In the United States, for example, the American Academy of Pediatricians recommends reducing exposure to cell phones *and at the same time*, the federal government's FCC - lead by a former Chief of the Wireless Industry- is rolling out more and more wireless infrastructure. Not a single US federal health agency has done a systematic research review on the issue and -as far as we know- there are currently no plans to

do so. Therefore, it is important for people to be made aware of these issues and take precautions <i>now-</i> in their homes, work, school and community.				

Environmental Health Trust http://ehtrust.org/



FACT SHEET

Wireless Radiation
Exposure
in Schools

What is wireless radiation?

• Non-ionizing radio-frequency (RF) radiation, also known as microwave or wireless radiation, is one form of man-made electromagnetic radiation. Current technologies use RF radiation to send and receive data wirelessly. Common RF radiation sources are radio and television transmissions, cell towers and antennas, cell phones, cordless phones, baby monitors, wireless computer networks (WLAN), smart utility meters and all other wireless devices.

Are there health impacts associated with wireless, or RF radiation?

- Until recently, it was generally accepted that a device using RF radiation only posed a health risk if it generated enough heat to raise the temperature of body tissue referred to as a thermal effect. In 2016, the results of a multi-year, \$25M study from the National Toxicology Program revealed that RF radiation can cause biological harm at levels far below the actual heating of tissue. This study confirmed the findings of the World Health Organization which classified RF radiation as a possible human carcinogen. Thousands of other peer-reviewed studies from around the world have corroborated these findings.
- Besides cancer, other health impacts associated with exposure to RF radiation include interference with normal brain development in fetuses, damage to reproductive systems, genetic damage, neurological problems and learning deficits, behavioral issues, sleep disruption and electro-hypersensitivity.
- Given our incomplete knowledge of the health effects associated with chronic, low level exposure to RF radiation, the employment of the Precautionary Principle* seems entirely appropriate and necessary for schools, where children spend about half of their waking hours each day.

"Current FCC standards do not account for the unique vulnerability and use patterns specific to pregnant women and children. It is essential that any new standards for cell phones and other wireless devices be based on protecting the youngest and most vulnerable population to ensure they are safeguarded throughout their lifetimes."

- American Academy of Pediatrics

* The Precautionary Principle states that "when there is an indication of harm to health or the environment, precautionary measures should be taken, even if some cause and effect relationships are not yet fully established scientifically." This principle guides governments around the world when considering regulation of products and technologies.

Are children more vulnerable to RF radiation?

- Children are always more vulnerable to threats in their environment due to their immature and rapidly developing bodies and their typical behaviors. A growing body of scientific studies confirms this vulnerability. Some key findings include:
 - Children have more stem cells which are shown to be especially sensitive to RF radiation, and because they are still growing, their cells are dividing more rapidly.
 - A child's head shows absorption (or penetration) rates of RF radiation at approximately twice that of an adult.
 - Children today will have a longer lifetime exposure and have much of their lives in front of them. A time lag of 10-20 years to develop cancer will impact them more significantly in the prime years of their lives.
- RF radiation has become ubiquitous in young children's lives, as companies design and manufacture wireless devices that are intended for use by children, even before birth and as newborns.

Does the use of wireless devices in schools create high levels of RF radiation?

- Schools may employ commercial routers to accommodate the large number of users in a classroom. These routers can be more powerful than home models and close proximity to the router can greatly increase exposure.
- Typical WLAN or WiFi installations in schools generate constant, pulsed RF radiation even when no wireless devices are being used. Teachers and students add to (or amplify) this when they are downloading and uploading information.
- The level of RF radiation at tables of 6 or 8 children when they are all using the internet can easily exceed levels deemed safe by experts.
- Radiation can be blocked or reflected by metal objects and then absorbed or reflected by people in the room. This causes "hot" and "cold" spots in the classroom, making it impossible to get an accurate exposure reading in a classroom with multiple users.

What are other countries doing to protect children from wireless radiation in schools?

2007 - Bavarian parliament (Germany) recommends the use of wired networks in all Bavarian schools due to health concerns and had each single school informed about this recommendation by the state secretary.

2011 - The Council of Europe recommends WiFi be banned from schools. The Council of Europe has 47 member states and is highly influential in policymaking. Scientific Panel concludes that standards for WiFi and other wireless devices are "entirely inadequate" and "strongly recommends that schools do not install wireless internet connections that create pervasive and prolonged EMF exposures for children."

2015 - The Israeli government bans WiFi in kindergartens and restricts hours of use in schools. "Israel is a world leader in research on the health effects of non-ionizing radiation," said Linda Birnbaum, Director of the US National Institute of Environmental Health Sciences. "If some of the studies turn out to be harbingers of things to come, we may have major health consequences from the nearly ubiquitous presence of wireless equipment."

Are there other reasons or cost effective options for providing wired internet access to school children?

- Yes. Wired connections are more protective of children's privacy and more secure than wireless because they
 are more difficult to "hack."
- Wired connections are faster than wireless if high-speed gigabit Ethernet connections are used.
- Newer technologies already exist and more are in development that can hardwire a classroom at a comparable or even reduced cost compared to wireless installations.

We fully support and promote access to the internet in all schools. We join with medical doctors, medical researchers, toxicologists, United States and International Public Health Agencies who advise caution and risk reduction around wireless radiation in places where pregnant women and children live, learn and play and strongly suggest hardwired internet connectivity.



52 Main Street • Port Washington • New York • 11050 • 516.883.0887 • www.grassrootsinfo.org